***BY ORDER OF THE SECRETARY OF THE AIR FORCE***

***AFI 11-2AE-3V3, CL-3***
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***Equipment Functional Checks***

**AEROMEDICAL EVACUATION CREW (AEC) CHECKLIST**

This checklist establishes procedures for Aeromedical Evacuation on mobility aircraft employed by Mobility Air Forces (MAF) to accomplish their worldwide missions.

This checklist complements AFI 41-309, *Aeromedical Evacuation Equipment Standards*, and is printed on standard 8 ½" x 11" bond paper then trimmed to a unique size 4 ½" x 6 ½" that will fit the standard plastic aircrew checklist binders. Units may request copies of this checklist printed on a water proof based media (in the size outlined) from the OPR. This product reduces weight and eliminates the need for plastic inserts. Limit waterproof copies to aircrew only for use in-flight and training purposes.

This checklist is intended to provide quick and reliable references to aid the AEC while mission planning and for use in-flight. All AE crews will carry this annex.

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This document is new

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## SECTION II

### EQUIPMENT FUNCTIONAL CHECKS

**Operational Preflight:** A complete and thorough assessment of the condition and status of medical equipment that will be accomplished prior to mission launch by qualified Aeromedical Evacuation personnel, IAW AFI 41-309, *AE Equipment Standard,* preflight checklist.

**Functional Check:** An abbreviated assessment of the medical equipment on the mission's aircraft by that mission's assigned aeromedical evacuation crewmembers. Verifying presence of each piece of equipment and accomplishing items listed in the checklist below completes the functional check.

**Bag-Valve-Mask Resuscitator**

1. Make sure the bag is sealed.
2. Ensure the bag is intact, and does not contain any rips, or holes.
3. Ensure the location of airway adjuncts is known.

**Portable Therapeutic Liquid Oxygen System (PTLOX)**

1. Open the accessory case, inventory the components and inspect them for serviceability.
    a. (3) 20-foot oxygen hoses.
    b. (3) Flow control valves.
    c. (3) Humidification bottles.
2. Remove the accessory case from the liquid oxygen unit.
3. Check the battery condition by depressing the TEST button. The digital display should show between 10.00 and 19.99. If not, replace the batteries with 9-volt batteries.
4. Determine the liquid oxygen quantity by depressing the OPERATE button and observing the digital display for the liters of liquid oxygen

present. The quantity will be between 0.00 liters and 10.00 liters. Ensure the quantity is sufficient for the mission.

5. Check the pressure gauge for proper operating pressure (50 +/- 5 psi).

**Pulse Oximeter**

1. Ensure all components are present and in serviceable condition.
    a. Oximeter.
    b. Adult Probe (>45 kg).
    c. Pediatric (15-45kg) probe.
    d. Infant (3-15 kg) probe.
    e. Neonate (<3 kg) probe.
    f. 5 ft cable.
    g. Battery Charger.
    h. Protective rubber boot with carrying strap and mounting slide.
2. Turn the monitor on.
3. Place probe on finger.
4. Measure the SpO2, pulse rate, and pulse strength bar graph.
5. Remove from finger, ensuring PROBE/SENSOR alert alarm sounds and illuminates.
6. Turn off oximeter.

**Uni-Vent "Eagle" Model 754/754M Ventilator**

1. Ensure all components are present and in serviceable condition.
    a. Uni-Vent 754/754M Ventilator.
    b. Ventilator Circuit.
    c. (2) 0.2 Micron filters.
    d. Compressed Air Hose (yellow), female dual-end adapter.
    e. Oxygen Hose (green), female dual-end adapter.
    f. Humi-Vent™ "artificial nose" 250– 1500cc.
    g. AC power cord adapter 90-265 VAC/47-400 Hz.
2. Connect to A/C power. Display will show EXT PWR ON and ON CHARGE.
3. Turn Uni-Vent on by selecting AC, SIMV, or CPAP.
4. Verify successful completion of SELF-Check.

5. Check for positive indexing and operation of all switches and controls.
6. Disconnect external power source and verify internal battery operation.
7. Turn off.

**ZOLL M-Series CCT**

1. Batteries; One fully charged in the unit and one fully charged spare available in the accessory bag.
2. **Disposable supplies located in accessory bag.**
    a. Electrode gel—Tube - 1 ea or patches - 3 ea
    b. Multi-Function Electrode Pads in sealed pouches—3ea
    c. ECG electrodes—3 sets
    d. Three (3) rolls of ECG recording paper (1 in the recorder).
    e. Alcohol Wipes—3ea
    f. Safety Razor—1ea
    g. Spare battery—1ea
    h. SpO2 cable--1ea
    i. EKG cable--1ea
    j. 12-lead--1ea
    k. 4 lead--1ea
    l. Regular adult BP cuff--1ea
3. **Operational Checks**.
    a. **Power On Sequence:**
        (1) Connect to 120VAC/50-400 Hz electrical power source. Turn on unit to MONITOR, 4 beep tone heard.
        (2) Observe the display screen for messages and prompts.
        (3) ECG size X1 and "PADDLES" or "PADS" as lead selected.
        (4) Turn unit to OFF.

**Propaq Encore 206 EL**

1. Accomplish the following with the unit unplugged from external power:
    a. Turn-on unit.

b. "Startup window" displays information about the Propaq Encore and the monitor runs a diagnostic test to ensure proper functioning.
c. Verify the battery indicator must be charged to >7.8V.
d. Turn off.

2. Plug unit AC power cord into the electrical port on the right side of the unit.
3. Verify the AC voltage in the indicator window on the Universal Power Adapter is the same as the power source you are going to plug into.
4. Plug the gray power cord into the "Universal Power Adapter" and the other end into the appropriate power source.
5. Depress the On switch located on Universal Power Adapter.
6. Verify the green battery charging light illuminates on the monitor and Universal Power Adapter.
7. Ensure the following accessories are in the carrying case.
   a. Blood pressure cuffs: Adult standard, large, thigh, Small adult/Child, Child, Infant, and Adult/Pediatric NIBP hose, Infant NIBP hose.
   b. ECG Cable 3 or 5 lead, 6 ea Adult and Pediatric electrode pads (silver or silver chloride pads).
   c. SpO2 Sensors: Adult/Pediatric, one Finger Clip-on type, Pediatric/Infant, Wrap around type and Sensor Extension Cable.

**Life Pak 10/BSS**

1. Check 6 FastPak batteries for damage and shelf life/reconditioning currency (which is documented of the back of the battery).
2. Verify accessory items present:
   a. Two (2) rolls of ECG recording paper (1 in the recorder).
   b. Patient lead cable.
   c. Pediatric electrode pads (silver/silver chloride pads).
   d. Adult electrode pads (silver/silver chloride pads).
   e. Electrode paste or gel.
   f. Pediatric paddle attachments.

3. Switch LIFEPAK 10 on and observe 5 second self- diagnostic test for all indicator lights to illuminate. The service indicator will remain illuminated if a failure is detected in the self-test.
4. Defibrillator testing is accomplished by delivering a charge from the defibrillator to the TEST LOAD pads on the Physio-control Battery Support System:
    g. Connect the Battery Support System to a 120 VAC/50-400 Hz power source and verify POWER ON illuminates.
    h. Switch the RECORDER and the LIFEPAK 10 OFF.

**Avionics Electrical Frequency Converter**

1. Ensure converter is off.
2. Connect 25 foot input power cable to converter first then to aircraft outlet.
3. Turn converter on.
4. Verify power to the converter and check the amperage draw.
5. Secure the converter to the aircraft floor.

**Electrical Cable Assembly System (ECAS)**

1. Ensure the following components are present, and observe for any defects:
    a. (4) 25- foot AC electrical cords with four (4) grounded outlets each (Yellow cables).
    b. (2) 30 –foot DC electrical cords with two (2) “twist-lock” outlets each (Orange cables).
    c. (4) AC adapters for C-130 and C-141 aircraft (Yellow cable).
    d. (4) AC adapters for C-130 aircraft (Yellow cable).
    e. (2) DC adapters for C-130/C-141 aircraft (Orange cable).
    f. (1) AC adapter for KC-135 aircraft (Yellow cable).
    g. (1) AC Frequency Converter adapter for KC-10 aircraft (Yellow cable).
    h. (1) AC Frequency Converter adapter for KC-135 aircraft (Yellow cable).
    i. (1) AC electrical tester.
    j. (1) DC electrical tester

**IMPACT 326M Portable Suction Unit**

1. Ensure the following component parts are present and in serviceable condition:
    a. Auto power cable assembly.
    b. (1): 6 foot connective suction tubing
    c. (1): 3/8" Clear hose PVC – 12. Inches long.
    d. (1): 1/4" Clear hose PVC – 24 Inches long.
    e. (1): 3/8" Clear hose, PVC – 18 Inches long.
    f. (2): Disposable collection canisters with lids.
    g. (1): Yankauer Catheter.
    h. (1): 14 Fr. Catheter.
    i. (1): 18 Fr. Catheter.
    j. (1): Spare fuse
    k. (2): Universal canister attachment brackets.
    l. (2): (0.2) micron antibacterial filter
2. Ensure the Power & Mode Selector switch is off, and then plug the AC line power cord to an external power source. External power lamp and charge lamp will illuminate.
3. Remove the electrical cord from the external power input jack and ensure the unit operates on battery power.

**IVAC Medsystem III**

1. Turn pump on by depressing the ON/OFF RECHARGE key.
2. Observe the three, illuminated, red and green Channel Indicator lights cycle on and off.
3. Observe the three cassette holders move down and up.
4. Turn pump off by depressing and holding the ON/OFF RECHARGE key until display disappears.
5. Connect to an AC power source.
6. Verify the battery is charging by ensuring the green light on the power cord and the green light on the right panel of IVAC illuminate.

**Incubator (ALSS)**

1. Inventory the following accessory kit for the following items and ensure they are serviceable:
    a. An oxygen regulator for the oxygen cylinders.
    b. A wrench for the oxygen cylinder valve and regulator.
    c. A 50 cc Luer-Lock syringe.
    d. Two (2) humidification sponges with precut notches.
    e. An extra mattress cover (pillowcase).
2. Ensure the oxygen cylinders are secured and have at least 1000 (psi). Ensure a plastic washer is in place between the regulator and the oxygen cylinder valve outlet.
3. Connect the incubator to 115 VAC/50-400 Hz source.
4. Switch the incubator "ON" and ensure the AC OP Indicator illuminates.
5. Disconnect the incubator from AC power and ensure the battery operation LED illuminates.
6. Switch "OFF" the incubator
7. Reconnect the incubator to AC power and ensure the battery charge LED is illuminated.

**Mobile Oxygen Storage Tank (MOST)**

1. Open MOST case and inventory apparatus kit components and inspect them for serviceability.
    a. Three (3) 20-foot low pressure oxygen hoses on spools
    b. Three (3) flow control valves
    c. One (1) quick connect adaptor
2. Remove the apparatus kit from the MOST.
3. Determine the oxygen quantity, ensure the quantity is sufficient for the mission.
4. Check output pressure gauge for proper operating pressure (50 +/- 5 psi).

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